Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-22 (canceled)

23. (Currently amended): A method of post-growth tuning of an optical bandgap of a semi-conductor heterostructure comprising:

> forming an oxide layer on the top-surface of said heterostructure;

> depositing at least one metallic interlayer on at least one region of said oxide layer; ~~and~~

> depositing a ~~post-annealing said~~ dielectric layer onto said heterostructure; and

> post-annealing said heterostructure.

Claim 24 (Original): A method according to claim 23 wherein said oxide layer is formed by

> heating said heterostructure in the presence of pure oxygen;

> heating said heterostructure in the presence of oxygen and at least one inert gas;

> heating said heterostructure in the presence of water-saturated pure oxygen;

> heating said heterostructure in the presence of water-saturated oxygen and inert gas;

> heating said heterostructure in the presence of H_2O_2-saturated pure oxygen;

> heating said heterostructure in the presence of H_2O_2-saturated oxygen and inert gas; or

> heating said heterostructure in the presence of H_2O_2-saturated inert gas.

25. (Currently amended): A method of post-growth tuning of an optical bandgap of a semi-conductor heterostructure comprising:

a)   forming an oxide layer on the top-surface of said heterostructure;

b)   masking said heterostructure with a mask of a predetermined pattern such that said heterostructure is exposed in unmasked regions;

c)   depositing at least one metallic interlayer on said unmasked regions;

d)   lifting-off said mask;

e)   depositing a ~~post-annealing said~~ dielectric layer onto said heterostructure; and

f)   post-annealing said heterostructure.

26. (Original): A method according to claim 25 wherein steps (c) and (d) are repeated to produce additional interlayers according to additional specific patterns.